Quality Control

	er ID 121455 26, 2014 3:00:07 PM		*121	455*						Page 1	
Item ID: Revision ID: Item Name: Start Date: Required Date: Reference:	D3407-1 Stem 7/15/14 Start Qty: 20.0 Req'd Qty: 20.0	/ \ /	Accept	*N900 Cust Item Customer:	ID:	10	N *	Setup Sta	··1 V	S1* S2*	=
Approvals:	Process Plan:QC:	Date: 14-126-7	Tooling: SPC (Y/N):		Pate:		. 1	Run Star	^I\\ · · · · · ^q	R1* R2*	
Sequence ID/ Work Center II	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	_
Draw Nbr	Revision Nbr							V -7		- Stamp	
D3407	Rev E		``							,	38-6 Cl
100 *100* Doosan Lathe	DOOSAN LATHE Memo 1-Turn as Mill slot	s per Folio FA596 Rev: 4 A & & & & & & & & & & & & & & & & & &	0.00 0.00 & Dwg D3407 Rev: <u></u> €				21	<u>Ø</u>			\$\\\ \$A0\\ EI
	- 2-Deburr	:								\	69-6
110 *110* QC Quality Control	QC2- Inspect parts of Memo	f machine FAI/FAIB	0.00				21	φ_		<u>14-7</u> -2	240
120 *120* QC	QC8- Inspect parts - s	second check	0.00				21	Ø		DAS 44 (4) (*)	۲ / کرا
	Memo		0.00								

DQA:			_ Date:			-							TAART
QA Closed:			Date:			WORK ORDER NON-	-CC	ONFO	RMANCE / U		Work Order u	pdate only	AEROSPACE
						DISPOSITION					DEPARTMENT	·	
Work Ord	er: _					DISFOSITION	.			AGAMO: C	_	_	
	-					Rework			Skid-tube	Crosstube		Water Jet	Engineering
Part i	No.					Scrap			Machining	Small Fab		od. Eng. Coor.	Quality
						Use-as-is		Thern	noforming	Finishing	Rec/Sto	re/Packaging	Other
NCR I	۷o. ِ					Suspected Unapproved			Large Fab	Composite		Supplier	
Root			1		Desc	ription of work order update	اسا	Initial	Act	tion	Sign &		
Cause		Date	Step	Qty	Desc	or non-conformance	ı	ief Eng		ription	Date	Verification	QC Inspector
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Doc/Data	H												
Equip/Tooling	Н												
Handling/Pre	H		1.										
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Operator													
Offset/Setup													
Process							1						
Supplier													
Training													
Transport													
Unapproved									<u> </u>				
ř.							FA	ULT CA	regory				
Landi	ng (Gear				General		7		r		Г	- .
		Bending			_	Bend			rogram	-	Outside Dir	-	Pressure/Forced
	$oxed{oxed}$	Centre N	ot Conce	ntric	<u> </u>	BOM/Route	<u> </u>	Grain			Over/Unde	<u> </u>	Set-up
		Cracks			 	Broken/Damage/Defect	\vdash	Hardwa			Part Incorre	<u>-</u>	Temperature/Cure
		Crimp/Ki	nk/Ripple	/Wave	ļ	Burrs	_	- 1 `	ion Incomplete/U	· ·	Part Lost/N	ļ	Weld
	-	Cuffs				Contamination			tions Incomplete/I	Unclear	Part Moved	<u> </u>	Wrong Stock Pulled
	`—	Crushing			<u> </u>	Countersink	<u> </u>	-1	ned/off center	ļ	Positioned		Toub
	-	Heat Tre			L	Cut Too Short	<u> </u>	Mislab		Į	Power Loss	/Surge [Other
	\vdash	4 '	on Strip in	Tube	L	Drawing	\vdash	Misrea					
	<u></u>	Marks/C			\vdash	Drill Holes	<u> </u>	Off-set					
	<u></u>	4	Sequence		_	Finish	-	-	Calibration				
		Wave/Tv	wist in Tul	oe		Fit/Function	1_	Out of	Sequence				

Work Orde Thursday, June 2					*121	1455*							Page 2
Revision ID: Item Name:	D3407-1 Stem 7/15/14	Start Qty: 20.00	*2		ccept	*N900		100)*	Setup	Start Stop	IV	S1* S2*
Required Date: 'Reference:		Req'd Qty: 20.00		/O*		Cust Item 1 Customer:	D:						
Approvals:	Process Pl	an:	Date:		Tooling: SPC (Y/N):		ate:]	Run	Start Stop	^ \	R1* R2*
Sequence ID/ Work Center ID 130 *120* Packaging		Operation Description Identify as per dwg & Sto	ck Location:	4	Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accept Qty 2/	Rej Qty		Reject Number	Insp. Stamp

140

QC21- Final Inspection - Work Order Release

0.00

140

Memo

0.00

Quality Control

DQA:			Date:			_							TOACT
						WORK ORDER NON	-CC	ONFO	RMANCE / U	PDATE			AEROSPACE
QA Closed:			Date:							V	Vork Order u	odate only	
Work Orde	·r·					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	
Work Orde	:1.		_			Rework	1		Skid-tube	Crosstube		Water Jet	Engineering
Part N	l٥					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality
1 41(1)	٠٠.					Use-as-is	1 1		noforming	Finishing	- -{	re/Packaging	Other
NCR N	lo.					Suspected Unapproved			Large Fab	Composite		Supplier	
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Root					Desc	ription of work order update	ı	nitial	Act	ion	Sign &		
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Desci	ription	Date	Verification	QC Inspector
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		Bending Centre No	at Cancar	atric	-	BOM/Route	\vdash	Grain	rogram	F	Over/Under	<u>-</u>	Set-up
		Cracks	of Concer	ILIIC	\vdash	Broken/Damage/Defect	\vdash	Hardwa	are	-	Part Incorre	F	Temperature/Cure
		Cracks Crimp/Kir	ak/Binnla	/\ <i>M</i> /ava	\vdash	Burrs	-	ł	ion Incomplete/U	ngualified -	Part Lost/M	-	Weld
,	_	Cuffs	ik) Kippie	, wave		Contamination	\vdash		tions Incomplete/	· -	Part Moved	_	Wrong Stock Pulled
ŀ		Crushing			-	Countersink		4	gned/off center		Positioned \	_	_
		Heat Trea	at		-	Cut Too Short		Mislabe			Power Loss,		Other
		Inspectio		Tube		Drawing		Misrea		_		_	
	\vdash	Marks/Ch				Drill Holes		Off-set					
		Turning S				Finish		Out of	Calibration				
		Wave/Tu				Fit/Function		Out of	Seauence				

Thursday, June 26, 2014 3:00:06 PM

Work Order ID: 121455

121455

Parent Item:

D3407-1

Parent Item Name: Stem

D3407-1

Start Date: 7/15/14

Required Date: 7/15/14

Start Qty: 20.00

Required Qty: 20.00

Comments:

IPP Rev:A05.10.18New issueKJ/EC

IPP Rev:B Now on Doosan 08-05-14 JLM Verified By:DD

IPP Rev:C 08-08-12 revE as per dwg (ecn 08-507) DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M174R0.750		Purchased	No			100	f	8.1600	0.459	9.663158			DAS
M174R0	750								**		7-2	1	13

Location Loc Qty Loc Code MAT030 8.16 - m127647 8.16

THE 8 AL

129847

3 LL

DQA:			Date:										*DART
QA Closed:			Date:			WORK ORDER NON	-C(ONFO	RMANCE / UI		ork Order up	odate only	AEROSPACE
						DISPOSITION				AGAINST D	EPARTMENT,	/PROCESS	
Work Orde	er: _				<u>. </u>		,			_	¬	_	1
						Rework	4		Skid-tube	Crosstube	_ \	Water Jet	Engineering
Part N	۱٥.					Scrap	1		Machining	Small Fab Finishing	-1	d. Eng. Coor. re/Packaging	Quality Other
NCR N	do					Use-as-is Suspected Unapproved	1	mem	noforming Large Fab	Composite	- Kec/stoi	Supplier	
NCKT	٠٠					Suspected onapproved	J		carge ras		_	i i i i i i i i i i i i i i i i i i i	
Root		· · · ·			Desc	ription of work order update		nitial	Act	ion	Sign &		
Cause		Date	Step	Qty		or non-conformance	Ċh	ief Eng	Descr	iption	Date	Verification	QC Inspector
Design											·		
Doc/Data	Ш			•									
Equip/Tooling				_								-	1
Handling/Pre													
Material													
Operator "					<u> </u>								
Offset/Setup			· ·	Ì									
Process													
Supplier -													
Training		· A											
Transport	Ш		ł.		ļ.								
Unapproved			<u> </u>	<u> </u>	<u> </u>				*				<u></u>
							FA	ULI CA	TEGORY :				
Landi	$\overline{}$					General	$\overline{}$	ارمانه را	Program	Г	Outside Dim	onsions	Pressure/Forced
	Н	Bending				Bend BOM/Bouto	\vdash	Grain	Togram	, -	Over/Under		Set-up
		Centre N	ot Concei	ntric	-	BOM/Route	-	1			Part Incorre		Temperature/Cure
	\vdash	Cracks	l. /0:l.	. /\41=	-	Broken/Damage/Defect	\vdash	Hardwa	ire ion Incomplete/Ur	agualified	Part Lost/M		Weld
	-	Crimp/Kii	пк/кірріе	e/ wave	⊢	Burrs	-	-1	tions Incomplete/U		Part Moved		Wrong Stock Pulled
	-	Cuffs			-	Contamination Countersink	-	-4	gned/off center	- Inclear	Positioned V	Vrong L_	1 Wrong stock : uneu
	\vdash	Crushing Heat Trea			\vdash	Cut Too Short	\vdash	Mislabe		H	Power Loss/		Other
,	\vdash	Inspectio		Tubo		Drawing	\vdash	Misrea		L.	٠٠٠٠ ١٥٥٥/		1::
	H	Marks/Ch	-	iune	<u> </u>	Drill Holes	\vdash	Off-set					
	\vdash	Turning S			-	Finish	\vdash	4	Calibration			· · · · · · · · · · · · · · · · · · ·	·····
		Wave/Tw				Fit/Function	\vdash	- 1 '	Sequence				
I	1	TANGACLIN	eist iii i ük	· ·		11.19 Falletion		100001					

DART AEROSPACE LTD	Work Order: /	21455
Description: Tow Ring	Part Number:	D3407-1
Inspection Dwg: D3407 Rev: E		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
§ 0.063	+/-0:010	.070	/			+
1)4-28 UNF	Max: 0.2668 Min: 0.2635	-264	/			
Major Ø	Max: 0.249 Min: 0.2425	-244				
Ø0.625	+/-0.010	626				
Ø0.363	+/-0.010	. 364				
Ø0.750	+/-0.010	- 748				
R0.100	+/-0.010	R.100				
0.470	+/-0.010	2471				
0.500	+/-0.010	000	/			
3,250	+/-0.010	3.250				
4.250	+0.000/-0.010	4.246				
5.270	+/-0.010	\$.272	/			
0.150	+/-0.010	.160				
0.550	+/-0.010	.557				
0.625	+/-0.010	.620				
0.250	+0.010/-0.000	1258				
					·	

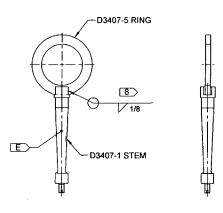
Date: 14-7-2

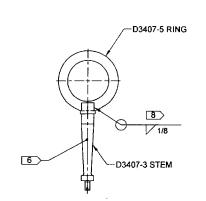
	DAG
Audited by:	44
Date:	14/57/24

Prototype Approval:	N/A
Date:	N/A

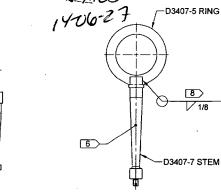
Rev	Date	Change	Revised by	Approved
Α	06.09.19	New Issue	KJ/JLM	
В	07.07.18	Tolerances for diameters updated per Machinists	KJ/JLM \	
С	08.05.14	Dimensions updated per Dwg Rev D	KJ/JLM 1.0	
D	08.10.07	Dimensions updated per Dwg Rev E	KJ/DD 🖏	

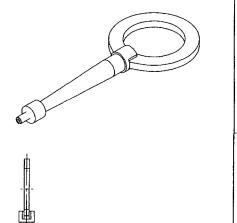
Æ QTY -041 QTY -043 PART NUMBER DESCRIPTION D3407-041 TOW RING D3407-043 **TOW RING** D3407-045 **TOW RING** D3407-1 STEM D3407-3 STEM D3407-5 RING D3407-7 STEM





SHOP COPY RETURN TO ENGINEERING UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE
WORK ORDER
NO 12 14 ST MC5





D3407-041 TOW RING

D3407-043 TOW RING

D3407-045 TOW RING ♠

DESIG	N 19 DART AFROSPACE		INC
REV.	DESCRIPTION	BY	DATE
Α	NEW ISSUE	CP	05.03.16
В	UPDATE DIAMETER, THREAD CLASS ADDED	CP	05.06.17
С	-1/-3 LONGER FOR FIT W/WASHER	CP	05.09.09
D	D3407-1/-3 SLOT WAS ROUND NOW FLAT FOR ASSEMBLY WITH D3407-5 (ZN C2-2; C2-3); D3407-5 WAS ROUND NOW FLAT ON ONE END FOR ASSEMBLY WITH D3407-1/-3 (ZN B6-4); REASON: PRODUCTION FACILITY	PH	08.04.07
Ε	ADD D3407-045 (ZN B2-1, D8-1); ADD D3407-7 (ZN B6-5); REVISED NOTE 6 TO ADD IDENTIFICATION (ZN A5-1); REASON: PRODUCTION FACILITY	PH	08.07.23

DESIGN	_ 141	DART AEROSPAC	E USA, INC.
DRAWN	PH	PORT HADLOCK, WA	
CHECKED	- / /	DRAWING NO.	REV. E
MFG. APPR.	6/d/	D3407	SHEET 1 OF 5
APPROVED	_/\\	TITLE	SCALE
DE APPR.	#	TOW RING	NTS
DATE 08.07.23		COPYRIGHT © 2005 BY DART AEROSPACE USA, INC. THIS DOCUMENT SPRATE AND CONFORMAL AND IS SUPPLED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR MY PURPOSE OR COMPLEX OR COMMUNICATED TO ANY OTHER PERSON WITHOUT	

NOTES:
1) MATERIAL: N/A
2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3 (EXCEPT THREADS)
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: N/A
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3407-XXX" USING BLACK FINE POINT PERMANENT INK MARKER
7) WEIGHT: D3407-041 - 0.60 lbs, D3407-043 - 0.53 lbs, D3407-045 - 0.61 lbs
8) WELD PER DART QSI 004 ON ALL EDGES BETWEEN STEM AND RING

